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Gender Cultures in Research and Science: An Investigation at Birkbeck

by

Viviana Meschitti, Wendy Hein,

Henry Etzkowitz, Helen Lawton Smith

Birkbeck, University of London



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This research focuses on career trajectories and experiences of Birkbeck academic and professional staff, with a focus on gender differences. Literature highlights that horizontal and vertical segregation in universities persist, and are deeply rooted in organisational structures. To better understand how individual career choices and work conditions interplay with the overarching organisational structure at Birkbeck, a research applying more in-depth methods (interviews, focus groups, and observations), has been conducted in 2014 and 2015. The findings highlight that differences between women and men exist, especially in relation to the management of their workload and to the tasks they are in charge of. Also, women are still subject to subtle discriminations and stereotypes that undermine their professional role and image. A gendered division of labour still exists inside and outside working places. Overall, these results ask for interventions at different levels of an organisation: the micro level where tasks and workloads are negotiated, and the sites where strategic decisions are made; also, it is necessary to raise awareness on gender issues at all levels and to push towards cultural change.

1. Introduction

The quest for gender equality in workplaces dates back at least 40 years, but problems still persist in every sector. Considering higher education, underrepresentation of women can be observed at two different levels: first, women are underrepresented in some disciplines (the “STEMM” subjects, i.e. science, technology, engineering, mathematics, medicine); then, in nearly all disciplines, women are underrepresented in the most senior academic ranks, this being known also as the “glass ceiling” phenomenon (EC, 2008, 2012a, 2012b; Sonnert & Holton, 1996). The same patterns are replicated outside academia (EC, 2009; OECD, 2012). It has been shown that the entrance of new female students in undergraduate programmes, and the increasing number of women gaining a PhD, are not enough for achieving an equilibrium (EC, 2012a, 2015).

The situation at Birkbeck College reflects the picture drawn by data from the UK and Europe: women are especially underrepresented in the School of Science (in line with elsewhere in the UK) and in the School of Business, Economics and Informatics (less in line with elsewhere). Birkbeck’s last Equality Report (Birkbeck Human Resources 2013) shows that, from 2009, the overall ratio of females to males is quite stable, with 52% women and 48% men overall. In the whole College, women represent the 48% of the academic, research and teaching staff; among the professional staff they represent 55%. The data becomes interesting from a gender perspective when considering occupational groups; men are highly represented in senior management (70%) and among the professors (58%), while women are mostly present in the assistant and junior professional and support staff (66%). Regarding disciplines, women are especially underrepresented in the School of Business, Economics and Informatics (33% considering the entire academic, research and teaching staff). Considering professors, the differences become even more striking, with 30% of women professors in the School of Science, and 21% of women professors in the School of Business, Economics and Informatics. Largely because of their high representation in the most senior positions, men also represent the strongest percentage among those gaining the highest salaries: regarding the academic, research and teaching staff, 48% of men gain over £50,000 per year, against 36% of women; regarding the professional and support staff, 10% of men gain over £50,000, against 5% of women.

Starting from the assumption that such differences persist because organisations are “gendered” (Acker, 1990; West & Zimmerman, 1987), this meaning that organisations produce and reproduce a gender order at the disadvantage of women, this research principally aims to comprehend the reasons behind the underrepresentation of women described in the section above, and the role played by

gender in shaping academic careers in an organisation. More specifically, it wants to understand how professional and personal career trajectories of academic and professional staff at Birkbeck unfold, and scientific daily routines are characterised.

The paper is structured as follows: first, an overview of relevant literature explaining gender inequality, with a focus on the academic sector; then, the design informing this research; the findings follow; afterwards, recommendations will be presented on how to better tackle gender inequality in an institution such as Birkbeck; the conclusions will offer the opportunity to think about the contributions and limits of this research.

2. Academia as a gendered organisation?

The persistence of gender inequality can be better explained when conceptualising organisations as “gendered”: this means that their structure produces and reproduces a gender order, that is present in our societies, and that assumes a division of labour constraining women in some specific areas (in relation to both occupational sector and rank). Gender is not a fixed attribute, but it has a performative nature, as shown by prominent scholars such as Candace West and Don Zimmerman (1987), Judith Butler (1990), and Joan Acker (1990): gender is created and recreated through our daily routines and interactions. Organisations tend to recreate and redefine gender identities: what is masculine and what is feminine, what is expected from men and what is expected from women; what is more, such expectations can then trigger stereotypes on what is assumed to be desirable from men and from women. Acker (1990) underlines that organisations tend to privilege an employee profile that has specific connotations from the point of view of gender: this profile tends to coincide with that of a man (white middle or upper class) who is completely devoted to his own work, while the role of women is often marginalised independently of their position and the type of contribution they give.

The gendered nature of organisations is possible because of the broader presence of a gender bias in our societies, impacting on human action and shaping cultural frameworks, which are largely built around a masculine ideal. At the societal level, this affects not only the choice of professions (causing horizontal segregation), but it undermines career and progression opportunities (vertical segregation). At a micro level, if we consider everyday organisational routines, women are likely to be the ones who more often experience discriminations, and who more often encounter difficulties in contributing to important processes or in making their voice heard (Etzkowitz, Fuchs, Gupta, Kemelgor, & Ranga, 2008; Etzkowitz, Kemelgor, & Uzzi, 2000; Gherardi & Poggio, 2001; Rosser, 2004; Valian, 1999).

Universities are not an exception to the concept of gendered organisation (Benschop & Brouns, 2003). In her study on the UK higher education sector, Deem (2003) investigates how the management of academic institutions is gendered in terms of power relations and career expectations, and how this impacts on the career trajectories of women and men; the existence of a problem at the more senior levels of academic hierarchies and in university management has been clearly documented and discussed (Gallant, 2014; Haake, 2009; Morley, 2013, 2014; Peterson, 2015; Thompson, 2015). The existence of gender biases in the formulation of the criteria of academic excellence has been shown by scholars to be a reality in different research-intensive countries, such as the UK (Bagilhole & Goode, 2001; Knights & Richards, 2003), Switzerland (Fassa & Kradolfer, 2013), and the Netherlands (van den Brink & Benschop, 2012a; van den Brink, Benschop, & Jansen, 2010); also, universities have not reconciled the concepts of excellence and meritocracy, with the pursuit of diversity (Deem, 2009). The negative effects of the persistence of male networks and the tendency of men to promote other men have been pointed out as well (van den Brink & Benschop, 2014). Furthermore, literature highlights the challenges related to high workload and work-life balance (Acker & Armenti, 2004;

Araujo, 2008; Bailyn, 2003; Rafnsdóttir & Heijstra, 2013; Woodward, 2007), and mobility (Ackers, 2003). At the micro level of daily academic routines, scholars have shown that women are often at the centre of both direct and indirect discriminations (Etzkowitz, et al., 2000; Rosser, 2004) and stereotyping negatively affecting their career progression (Acker, 2012; Haynes & Fearfull, 2008; Priola, 2007; Søndergaard, 2005).

It is worth underlining that gender imbalance is a multifaceted and complex phenomenon, involving several actors and depending on many contextual factors (such as the type of organisation and organisational structure, the specific activities being conducted, the composition of work groups and the type of leadership, but also regulatory frameworks at the organisational and national levels). This is exemplified by van den Brink and Benschop's (2012b) metaphor of gender inequality as a "seven-headed dragon", a creature with a multitude of faces in different social contexts. For this reason, in order to investigate the underrepresentation of women in academia, it is worth using an in-depth approach and applying several methods.

3. Research design

3.1 Aims, methods and sample

This study has been guided by a holistic, in-depth, inductive approach inspired by interpretive research (Janesick, 1994; Lincoln & Guba, 1985; Silverman, 2005). The research project focuses on the two schools in Birkbeck where women academics are especially underrepresented, the School of Science and the School of Business, Economics and Informatics (BEI). It aims to understand not only career trajectories and personal experiences at Birkbeck, but also patterns of participation of women and men in scientific activities. Both women and men are part of the study to assure a diversity of voices and perspectives; for the same reason, both people from academic and professional staff have been involved, since vertical and horizontal segregation of women applies to both. The research questions are the following:

1. How do professional and personal trajectories of Birkbeck members of staff unfold in the two Schools where women are underrepresented?
2. How are scientific routines at Birkbeck characterised?
3. How do individual choices interplay with the opportunities and constraints of the organisation?

The methods envisaged to fulfil these aims, and constituting the two phases of the project, are individual in-depth interviews, focus group discussions, and non-participant observation of research teams. Interviews privilege a narrative approach, which is widespread in literature on gender practices because it allows for an in-depth understanding of individual lived experiences; the sample comprises 15 people from the academic and professional staff, across all grades. Focus groups should support understanding of how people construct together an account of their roles, experiences and trajectories; they involve 4-8 people each, from both professional and academic staff, across all grades. Observations of research teams allows for understanding how scientific routines are conducted, and in which ways gender intervenes in shaping daily tasks. These methods should inform each other and cross comparison among the data should permit a thorough understanding of gender dynamics in scientific careers, this paving the way for formulating recommendations to Birkbeck and to other academic institutions.

The population to which we refer to is composed of 281 members of academic and research staff (168 from the School of Science and 113 people from BEI), plus an additional 145 members of

professional and support staff (81 from the School of Science and 64 from BEI). Women are underrepresented across the entire academic staff in BEI, and at the professorial level in both Schools. The data are summarised in the table below.

Table I: population of our study

	Professional and support staff			Academic and research/teaching staff			Professorial staff		
	Female	Male	All	Female	Male	All	Female	Male	All
School of Science	45	36	81	77	64	141	8	19	27
BEI	35	29	64	30	50	80	7	26	33

Recruitment of interviewees anticipated the recruitment of participants for focus groups by a couple of months, so that preliminary results from interviews could inform the design of the questions for the focus groups. Overall, 25 people volunteered for the interviews, more than our expected sample, and 15 people were invited for an interview. Regarding the focus groups, 10 people volunteered at the first call, and 7 at the second call. Regarding observations of research teams, this has been the more challenging phase: because of ethical issues related to conflict of interest (some members of the research team working in one of the departments being also part of the population for this study), access has been difficult to gain; as a result, one team only could be observed, and observations have been limited to weekly team meetings.

Below is a description of the actual participants in focus groups and interviews. Regarding the division between senior and junior, in the case of professional staff we relied on their own definition; in the case of academic staff, junior comprises teaching and research assistants, PhD students, and lecturers; senior comprises senior lecturers, readers and professors. The description of the members of the team being observed is here omitted to avoid recognising the team; however, we can report that the team was mostly composed of junior academics, with a good balance between genders, and a prevalence of women among the most senior.

Table II: Participants in individual interviews and in focus groups

	Women				Men			
	Academic		Professional		Academic		Professional	
	Junior	Senior	Junior	Senior	Junior	Senior	Junior	Senior
Interviews	3	5	1	2	3	1		
Focus groups	I	1		1	1		1	
	II		1	2	1	1		

Interviews have been on average 1 hour and 10 minutes long (35 minutes the shortest interview, and 1 hour 42 minutes the longest one). Focus groups have been on average 1 hour 35 minutes long. Both interviews and focus groups took place in the College. Both interviews and focus groups have been recorded and transcribed verbatim. Observations have been on average 1 hour long (the usual length of weekly meetings in the observed team), and 10 team meetings have been observed from April to October 2015; recording has not been possible for confidentiality reasons.

Regarding interviews, participants have been presented with specific questions concerning their career path and experiences inside and outside Birkbeck, but they have been left free in developing their

answers as they wish and in introducing new topics. Interviews have always been conducted by the same interviewer; notes have been taken during and after the interviews regarding main topics of discussion and impressions of the interviewer. Regarding focus groups, participants have been asked to describe their role and main activities at Birkbeck, and then had the opportunity to freely talk about themselves in relation to the way they approach their work and the challenges they perceive. The first focus group has been conducted by two members of the research team, and the second by three of them. Observations have always been conducted by the same observer, who carefully took notes especially in relation to interaction patterns, chairing style, topics to be discussed, patterns of questions and answers.

Following the hermeneutic cycle characterising interpretive research, analysis has been characterised by three steps: first, a careful reading of the transcribed data and of the notes generated during the research; second, researchers looked for the main themes emerging in interviews and in focus groups; at the same time, researchers looked for interaction patterns emerging from the notes of the observations; third, themes (in the case of interviews and focus group) and patterns (in the case of observations) have been contrasted to look for categories able to summarise the phenomena observed; these categories have been refined in a movement of going back and forth from data to theory. This cycle permitted going from the formulation of codes, very close to participants' accounts, to more general themes and patterns emerging during the interactions (being these interviews, focus groups, or meeting interactions), which were compared with one another to look for more interpretations. To enhance the presentation of the findings, the categories formulated in the last step of the analysis have been reassembled in the dimensions presented in the following section.

Throughout this process, discussion among the researchers regarding the preliminary findings allowed for cross-checking and refining the results; the presence of a member of the research team who is not working inside Birkbeck gave the opportunity to look at the observed phenomena from a different perspective. Comparison of the different types of data, discussion among the researchers, and knowledge of the context of the research, should enhance the validity of these findings (Sandberg, 2005).

4. Research findings

In this section, the main findings are presented. We will examine five different thematic dimensions that emerged through our data: workload and work-life balance; the intersection of local and trans-local phenomena; the differences in career trajectories; indirect discriminations and gender bias; socialisation and training to new roles. Because of ethical issues, quotes are not reported in this paper.

A first important consideration regarding the dependence of our findings not only on the specific institutional and national academic context (Birkbeck, UK), but also on the considered Schools and their Departments: throughout all our data, differences emerged among Departments especially regarding some perceived challenges in the present work routines and in the way academic careers are encouraged; this is also related to differences in the type of leadership, because the participants themselves stressed that some habits in their Department depend on who is leading it. Certainly, the Department is important because it provides the first hierarchical structure in which participants are embedded and to which they refer.

A second aspect regarding the differences between being in an academic or being in a professional position: even if some patterns are present in both groups, it is clear that the two groups are in different career structures. An important point to consider in our findings regarding professional staff

is that in our group of participants we had just one man in a professional position; because professional positions, especially at the junior level, are dominated by women, our volunteers were also women.

4.1 Workload and work-life balance

An issue that clearly emerges throughout the data is the high workload, something especially experienced by academics. It is interesting that, when asked to describe their role and activities, most of the academics refer to research first; but, throughout the interviews it emerged that often the time dedicated to research is really only a little. The majority of the academics complain about the high administrative workload, and some highlight the amount of time invested in teaching, which, despite being a key activity in academia, tends to be more and more undervalued. Even junior academics complain of not having the time anymore to do their own experiments or to sit and analyse the data, and most of our interviewees would like to have more time for writing papers or for thinking about new research directions. The majority of our participants (and interestingly enough, the more senior academics especially), show a passion for teaching, but also awareness that it requires a lot of energy and does not make a difference in the academic CV.

Probably both the wish to have more time for writing, and the frustration towards the undervaluing of teaching, are related to a more general trend that we will describe in more detail later, i.e. the relevance of publications in top international journals for building an academic career. However, the pressure seems stronger in some Departments where collaborations with University College London (UCL) are conducted. This shows how institutional differences have a significant impact on the life of the staff: UCL is a much bigger and more well-known institution in comparison to Birkbeck, and some staff from Birkbeck School of Science rely on UCL for using some facilities that would be too expensive for a small College. Undoubtedly the collaboration with such a different and renowned institution makes staff from Birkbeck feel more under pressure to achieve the standards set by the international benchmarks in terms of publications and funding.

A topic related to the high workload, and thematised by women especially, is the struggle in having a work-life balance. While academia is praised for flexible working hours, on the other hand, the high workload does not make life easy for both academics and professional staff with young children. Furthermore, very often professional staff cannot even count on flexible working hours. New technologies and the internet can help in flexible working; however, they make the borders between work and private life more blurred. In general, flexible working hours and the possibility of working away have both advantages and disadvantages, and most of the participants have their own strategies for dealing with that. Participants with children, and women especially, repeatedly mention the importance of childcare and flexible working hours. If one could object that there is nothing new in underlining the importance of childcare for families, and in stressing that the fast pace and high workload of today's scientific careers may discriminate against those with family obligations, it is nevertheless striking how both these issues are thematised by the vast majority of our participants, and by women especially.

All those having familial obligations stress how balancing academia and family can be a constant struggle: for example, a male junior academic stressed the huge amount of hours he has always dedicated to academic work, and how this started to become a problem once he got married and he needed more time for his own private life. More interestingly, part-time policies do not seem to be a solution since they tend to slow down the pace of one's own trajectory and seriously compromise an academic career: one senior woman underlined that she has always excluded the option of working

part-time, even when she needed more time to take care of her family, because this does not pay off in the academic environment (both in terms of advancing one's own career and of salary). More interestingly, those not having any family obligations explicitly state that they are privileged; participants who now have young children or a partner state that they were in a much more favourable position when they were single, while one woman academic stressed she decided not to have children so as to be able to travel and commit to her work. In fact, women academics especially underline the difficulty of travelling and assuring their visibility at international conferences during the first years of life of a child.

The issue of juggling family and private life with an academic career still seems to represent a burden for women: not only did most of the women interviewed mention it (independently of being a mother or not), but many of them introduced the topic spontaneously, extensively explaining their situation and the problems they face in this regard; this happened in interviews especially, where participants probably felt more at ease in going in-depth into the features of their personal life. A junior academic clearly expressed her worries: she admitted she even asked herself if she will need to leave her job once she becomes a mother. Such worries are also related to contextual issues, because childcare in London can be very expensive. All the accounts from young mothers show that organising a good covering for maternity leave is essential: academic tasks often are not the easiest ones to be delegated and covered for a small period (usually 6 months), but assuring an adequate covering of teaching and admin tasks is worthwhile for having a smooth recovery after maternity leave.

It is worth stressing the fact that most of our participants, including men also, clearly expressed concerns in terms of work-life balance, showing that academia does not go hand-in-hand with childrearing or with other family obligations (such as taking care of the elderly). Undoubtedly, the pressure coming from international benchmarks is felt in the everyday life of Birkbeck staff: these benchmarks assume that people are always able to perform at their best in all the different areas of academic life (but in publications and research especially); this might not be easily reconciled with the rhythm and with any unpredictable event characterising daily family life.

4.2 Local, trans-local and international trends intersecting

It is important to stress that some of the recurrent topics we observed in the data refer to trends at a national and international level. The most important relates to the relevance of getting papers published in highly ranked international journals: all the academics, from the most junior to the most senior, spoke extensively about this, and some of them even showed frustration towards a system that seems to reward people in terms of metrics, and privileges publications over all the other aspects of academic life. Particularly interesting were the accounts from some junior academics speaking about the current trend to hire "stars": people who achieved their doctoral degree in well-known institutions and published in highly ranked journals at an early stage of their career. Even more senior academics showed some frustration towards a system that is giving more and more relevance to specific types of publications, and it is interesting that a woman academic underlined her willingness to publish in the journals she prefers, not necessarily in the ones ranked highly. The tensions and contradictions of getting published in top journals are so cross-cutting in academic life, that they were even at the centre stage of jokes and laughter in the team observed.

Other than publishing, most of our academic participants, both women and men, underlined the importance of getting funding for research in order to enhance the opportunities of an academic career, and to be able to negotiate a better salary (this being a concern for men especially). Even if only a few participants suggested that higher education has become a business (this also being related

to the high fees paid by students), it is clear that everybody was aware of the importance of attracting funding, and showed mixed feelings toward this.

The comparison with UCL especially made interesting accounts about Birkbeck emerge: Birkbeck staff seem to appreciate being part of a small institution, where the hierarchy is flatter and it is easier to have an understanding of the decision-making and hierarchical structure. As confirmed in the focus groups also, academic staff especially like being independent in pursuing their own research agenda and in organising their own time: Birkbeck is recognised as a place where relations are more based on collaboration than on strong competition, and this is appreciated by the participants; in fact, even the team observed was characterised by a collaborative atmosphere and trust among colleagues.

The dynamics between local and international trends become more complex if we keep in mind that Birkbeck was born as a teaching institution, i.e. the provider of evening and part-time teaching to non-traditional students. This mission makes Birkbeck unique in the panorama of UK higher education institutions. However, this creates tensions with the national (expressed by the Research Excellence Framework¹) and international trend towards high impact research. This tension is experienced by some of our participants, both women and men, who underline how the teaching orientation of Birkbeck is difficult to reconcile with this type of research requirement.

4.3 Different career trajectories and different life experiences

The very diverse career trajectories of the participants at times make it challenging to find common patterns: different career trajectories have a different impact on life experiences. Features of the career paths emerged during interviews especially. Considering our group of participants, we can make two distinctions regarding career paths: being academic or professional, and being junior or senior. These two distinctions clearly emerge across all our data. It can look surprising that these distinctions emerge more strongly than a gender distinction, but this is the case if we analyze the career paths of our participants. The difference between academic and professional is particularly strong, while the difference in seniority tends to level women and men's experiences. Once these two distinctions are considered, gendered experiences can be found, but they are often more related to specific events in time, or, they refer to very individual stories (and as a consequence it is difficult to find a common pattern); they are discussed in the next section.

Comparisons between academic and professional staff stress the different features of these career paths: while for academics, even for the most junior ones, it is generally clear what is expected from them and how they can build their own career, professional staff report more often to feel stuck in their own position and not to see career opportunities inside the College. The members of the professional staff who took part in our research are highly qualified or very experienced: the more junior ones express a wish to advance in their career, but often there is not a clear progression line in front of them, and they have few opportunities to participate in training courses. The juggling of work and family experienced by professional staff is especially due to the fact that often professional people have far less flexibility regarding working hours: members of the professional staff are usually supposed to come in everyday or to report or ask for special arrangements if they cannot do that.

The second distinction relates to seniority in the career track. Obviously, more senior members show a degree of awareness not only of institutional and higher education politics, but also of the impact of gender on careers; this is probably due to the fact that gender is part of us and our life, and its influence on life experiences may be difficult to ascertain, especially by those who are new to an

¹ The Research Excellence Framework (REF) is a system for assessing research quality in UK, www.ref.ac.uk

environment or profession. Several senior interviewees stress that gender has a role in shaping one's own career, and they especially underline the existence of indirect discriminations, biases, and different expectations towards men and women. Gendered expectations (e.g. women are more oriented to relations and care) intersect with behaviours (e.g. women tend to be less assertive) in complex ways; participants underline how gendered expectations and behaviours often constitute a stereotype (e.g. women can also be assertive, or men caring); on the other hand, because these stereotypes are strongly rooted in our culture, not complying with them means being perceived as a sort of outsider and can be subject to criticism. Among the more senior participants there are also three interviewees who reported having experienced, directly or indirectly, cases of bullying in their life (this usually involving people at a higher grade bullying staff at a lower grade), and the difficulties, at the individual and institutional level, of dealing with such cases.

It is also interesting to observe that the narratives by more senior members of staff more often underline the relevance of teaching in their career; this is probably influenced by the fact that teaching, as also underlined in the focus group, is being devalued as an academic activity, and it seems to have less and less weight on the academic curriculum; as a consequence, more junior members tend to focus more on research and publications.

4.4 Indirect discriminations and gender bias

Accounts related to discrimination and gender bias can be found across all our data coming from interviews and focus groups: they have been developed by participants in a variety of ways and it is quite challenging to give a brief summary here. Even if direct forms of discrimination are very rare in our group, it is important to highlight how almost all the participants showed awareness of gender differences and gender stereotypes. Women report more often having felt discriminated against or victim of some stereotypes in relation to gender. They often report discriminations that have been expressed in an indirect form; in some cases they speak about old anecdotes. These indirect discriminations often are expressed through behaviours or jokes that undermine the position of women (women as the ones who will “prepare the tea” in a research team, or maternity leave as a holiday).

In general, being active in more male-dominated environments, or in very competitive disciplines, creates a potential terrain for unfair gender relations to take place; this is confirmed also in our observations of team meetings, where the type of leadership and the diversity of the team contributed to create a collaborative atmosphere where no tensions between genders have been observed. One of our senior interviewees, who has been active in a male-dominated sector, experienced direct forms of discrimination and repeatedly being excluded from important career opportunities. Two of our women interviewees who are active in STEMM subjects report more senior women not being supportive or friendly, which is recognized by the literature as the “queen bee syndrome” (Ellemers, 2004; Staines, Tavis, & Jayaratne, 1974).

Most of the female participants, but the ones active in STEMM especially, report gender power dynamics demoting both the image and the role of women, such as, for example: women are more often judged by their appearance (this issue being raised by both academic and professional); women are more often considered not to be able to commit to work when they have a family and children; young women are positioned as sexual objects, or women as subjects consciously use this positioning for their career. The pervasiveness of these power dynamics impacts on women's accounts of their daily routines and of their professional ethos also: some of the women interviewed show concern towards their appearance or relate anecdotes in relation to that; others want to reject the stereotypes

and power dynamics referred to above, and try to stress that they are, first of all, academics and professionals (as a consequence they, for example, prefer not to speak about their private life); a minority report having used such power dynamics to turn in their favour. Probably the willingness of women to stress they are academics and practitioners first is at the base of the suspicion towards women-only initiatives, as thematised by some of our female participants.

Some of the women also report on behavioural differences between women and men that seem to reaffirm traditional gender roles, such as women being more focused on relationships, more willing to take care of admin duties and teaching, less inclined to “push themselves”, and men being more assertive; a senior academic underlined that women are the ones doing the “domestic work” of the organisation. Interestingly, one of our male interviewees expressed concerns regarding the fact that presently, when selecting students for PhD programmes, some specific personality types are preferred (and especially “pushy” people). In his experience, being “pushy” does not have any relation with being a capable researcher; nevertheless, if “pushy” personalities will be selected more often, in the long term this could affect retention of women or of other groups.

It is worth stating that overall, male participants also showed a certain degree of awareness of gender. For example, a male academic clearly thematised the concept of “hidden” gender bias that could affect selection procedures, and underlined the importance of having more women on panels. Men also showed awareness of gender issues in relation to the way tasks are shared in a couple or career trajectories are conceived: interestingly, male participants in one of the focus groups stated that, despite being aware of gender stereotypes and trying to avoid them, the organisation of their family life and plan for the future fall in line with the most common stereotypes. This is probably because, as shown in the literature, gender roles are deeply entrenched in cultural and social structures, and even direct interventions are confronted with values and mind sets that are not easy to change.

4.5 Socialisation and training to new roles

All interviewees have been asked about their first experiences in their role at Birkbeck, while participants in focus groups have been asked to reflect on how they think their role fits into (and gives meaning to) the overall College structure. Both academic and professional staff showed themselves to be proactive in becoming socialised to the new environment and tasks. Junior academic staff especially (independently of their Department and discipline), and women particularly, remember their first days in their position at Birkbeck as a very intense and challenging moment, characterised by active searching for information, planning activities, and establishing contacts, all of which was mostly conducted individually. In fact, across all the participants, it is possible to notice that people deal with their tasks mainly by themselves: it seems that not only academic work, but also administrative work within an academic institution, is work to be mostly conducted in isolation; this has been confirmed even more strongly in focus groups. Even if our participants showed a strong degree of personal motivation, working in isolation also renders it difficult to learn how things work in the College, to know about expectations from colleagues and from line managers, and ultimately to know about career opportunities. Working in isolation means also that, in the case that a problem arises, the individual will more likely to experience it as a personal problem, or be unable to look for adequate support.

Some of the junior participants reported having needed quite a long time before feeling part of the institution; others, who had been hired a few months before participating in our research, vividly spoke about how they still felt “lost”. This was also because very often the start of their work at Birkbeck coincided with entering a completely new role, with new responsibilities (such as

supervision responsibilities). It is clear that such adjustments require both time and effort. Participants who attended Birkbeck as students or doctoral students reported being facilitated by their previous experience, since they already had some idea about the College structure and knew some colleagues. The majority of the participants are more used to referring to the Department than to the “College”, which remains a sort of evanescent image whose structure is quite opaque, especially to the most junior employees. Few of the participants had experience with mentoring and coaching, which can potentially facilitate transition into new roles and new structures, but the few who had showed satisfaction towards these initiatives. What is worth stressing, as far as the broader socialisation and training for the academic discipline is concerned, is that the PhD supervisor has a great impact: the majority of the participants, and especially the most junior ones, did not hesitate to indicate their PhD supervisor (or even post-doc supervisor) as an important role model and source of inspiration.

Among the participants, two (one man and one woman) had past experience as Head of Department (HoD). At Birkbeck, HoDs have a very important role in assuring the smooth running of research and teaching activities, a fair distribution of tasks, and equal opportunities in getting promoted; also, this role is strategic when solving any interpersonal or bullying issue (if this is the case). However, as is the case for most new staff, HoDs do not receive any specific training in relation to their new role, and this has been pointed out as problematic: one of our participants having had experience as a HoD in different institutions stressed how training could be beneficial to academics in management roles, but this participant also highlighted how often academics are resistant to that.

The importance of having a HoD who cares about fair allocation of tasks and development of staff is underlined by several participants: for example, a woman in a male-dominated discipline praised her previous HoD for having the habit of giving regular feedback to all staff regarding their curriculum and for having motivated her to apply for promotion. Having the power of distributing tasks in the Department or in a research group clearly means also being in the position to assure equal opportunities for everyone and to avoid women being overloaded with administrative tasks and pastoral care, as was pointed out by a (male) senior academic.

One of the senior female participants highlighted how managing academics requires a lot of negotiation skills and ability in trying to convince others, often because reporting and hierarchical structures inside individual departments are not clear. Moreover, being independent and critical are intrinsic characteristics of academic work, and, as confirmed by the literature also, this makes the management of academics particularly challenging, as confirmed by previous literature (Deem, 2010).

Training for academic management could be particularly strategic: such training could benefit both those who are in the position of managers, who could gain a perspective on the challenges of managing academics, on the features of the institutional structure, and on the expectations on them; but it would benefit all staff, who could count on competent managers. Furthermore, training could give a push towards creating a more gender sensitive environment. On the other hand, such training should be tailored to the features of academic work and of the academic profession, and should provide a clear added value to these work routines.

4.6 Summary of results

To give a brief summary of our results, we underline that the accounts we gathered have been very varied, and they can be summarized along the three following *continua*: being a man or a woman; being academic or professional; being junior or senior.

- Women are still the ones who, independently of having familial obligations or not, take most care of their work-life balance; when they have familial obligations, they are very often the ones taking (or expected to take) this burden; when they are on their career path, they are the ones more often experiencing discrimination, especially indirect discrimination that undervalues their role; and they are the ones who can be easily criticised because of futile reasons (such as their appearance).
- Academics experience the hardest workload, but can also count on flexible working hours and on more training opportunities compared to professional staff; the problem for professional staff seems to be the absence of a progression structure in their career.
- Junior academics, even when they have already spent quite a few years in academia, seem to be less aware of both the impact of gender and the challenges of managing academics; moreover, they have a strong focus on their publication pipeline. Senior academics show a strong awareness of the complexities of gender dynamics, of the need to commit to a more gender sensitive environment, and of the benefits of training.

Overall, it is worth underlining how different Departments can constitute different worlds, each of them with their own culture, which impacts on personal experiences; and how the more general international trend towards a definition of academic excellence based on type of publication is strongly impacting the daily routines of our participants.

5. Recommendations

On the basis of the findings above described, we draft eight recommendations for academics, academic managers and policy makers willing to address gender imbalance in science. They relate to the following issues:

- 1) The impact of departmental and disciplinary cultures;
- 2) Fostering academic careers and creating new benchmarks;
- 3) Analysis of current situation and listening to staff needs;
- 4) Socialisation into a new environment, mentoring and coaching;
- 5) Bridging the divide of academic/professional staff;
- 6) Training for leaders and academic managers;
- 7) Women-only and mixed-gender initiatives;
- 8) Addressing gender stereotypes.

For each of these issues, more specific recommendations follow: these recommendations are meant to be exemplary, and they arise from our research; however, we do not exclude that supplementary recommendations can be designed for each of the eight topics, depending on the specific institution and on what is already in place.

5.1 The impact of departmental and disciplinary cultures

A careful consideration of the specific departmental and disciplinary “cultures”, where the group to be targeted works, is essential. Different departments have different habits and values (valuing collaboration or competition, for example, or promoting junior researchers): if it is true that male-dominated departments and disciplines can constitute particularly difficult environments for the underrepresented gender, in our interviews we observed that women in male-dominated environments could have opportunities for growth, while women in disciplines where more female members are present also experienced problems. This means that it is worth targeting interventions to departments

and disciplines, especially to avoid reproducing what is already in place, and also to avoid unconsciously reproducing the structures that constrain gender.

A first and relatively straightforward step for targeting interventions to departments consists in keeping a database permitting an overview of:

- Data about academic, professional and research staff per gender and grade;
- Data on promotions, applications, and funding, with a focus on submission and success rate per gender;
- Existing initiatives for introducing staff to new roles (induction and socialisation initiatives, mentoring, coaching), together with participation rates and (if available) participants' evaluation;
- Existing initiatives for supporting women, addressing gender, equal opportunities and diversity;
- Training opportunities for current staff;
- Training opportunities for leaders.

5.2 Fostering academic careers and creating new benchmarks

Following the previous recommendation, it is worth being aware that local dynamics intersect with trans-local and international ones, i.e. priorities and pressures can come from outside an institution (e.g. pressure for publications and high impact research) and heavily impact on daily academic routines. As a consequence, the design of interventions supporting gender equality should consider that some phenomena spread across and beyond a single institution, and that the current pressure for publications may not facilitate the path towards gender equality. A possible route can be supporting all the staff in having time for research, and, at the same time, creating new benchmarks that are more friendly in terms of work-life balance, support diversity, and award the variety of activities in which an academic is involved.

- Transparency in assessment and promotion criteria within the Department and within the College;
- Regular (one year) individual review, for all the staff, to discuss present achievements, career objectives, short and middle term strategies;
- Short research leaves (e.g. one month) for those with family obligations, or for those serving on several academic committees;
- More visibility for teaching awards, and assignment of awards also in the form of short research leaves;
- More visibility for doctoral supervision work and pastoral care, including teaching evaluation and students' completion rate in the evaluation of academic CVs.

5.3 Analysis of current situation and listening to staff needs

Interventions for staff should follow some form of analysis of the current situation and should try to match staff needs. Listening to and understanding staff needs are essential: this not only to understand which opportunities are already in place for them and which ones could be built, but especially, to understand their workload and how initiatives targeted to gender can fit into their commitments. Research participants reported a very high overload in their duties and adding one more piece of work to them can be detrimental; in academia, different work tasks seem to accumulate, and not to substitute each other, this being detrimental to people's time. Furthermore, the preference of academic

staff to manage their own time independently may work as a form of resistance to training opportunities. For these reasons, any new intervention should ultimately aim to support work-life balance, and strategies for remunerating or awarding participation in initiatives addressing gender should be considered. To make sure that any initiative is not clashing with a high workload, and to avoid replication and proliferation of committees and working groups with very limited powers, the following should be investigated (through surveys or even informal interviews, depending on the size and features of a department):

- How much time women and men devote to specific tasks (for example, empirical research; academic writing; supervision; teaching, administration; committees);
- In which type of committees and working groups women and men are involved;
- Priorities for career and main challenges in actual role;
- Exit interviews to understand the challenges met by (former) staff.

5.4 Socialisation into a new environment, mentoring and coaching

Academic staff especially privilege freedom and independence; however, guidance has been quite poor, especially at the beginning of the careers of our participants, and initiatives such as training for newcomers or mentoring could be beneficial to all staff. For example, mentoring could target specific groups and blend moments of one-to-one discussion with a mentor, with moments of networking and training within a larger group of mentors and mentees; this format would follow the formulas experienced in the Aurora Leadership Programme and in the Athena SWAN Mentoring Programme². Mentoring and training in relation to mentoring would make people more aware of the challenges of an academic career and of the need to consider gender equality when working with colleagues.

- Short induction (half day) for all new staff, and within the first month of their contract, in order to have an overview of the College and Department structure and of the opportunities for staff;
- Mentoring/ coaching programmes for new staff; depending on the type of role or on the Department, different types of mentoring can be designed (peer mentoring or group mentoring);
- Mentoring with a focus on career progression: especially for staff already having some experience in the institution, targeted forms of one-to-one mentoring focused on career progression can be beneficial;

5.5 Bridging the divide academic/professional staff

A feeling of a divide between academic and professional staff has been reported by professional staff, and probably should be considered; common events and common socialization or training initiatives can help to bridge this divide. Furthermore, the feeling of professional staff of being “stuck” in their position and not having progression or promotion opportunities should also be considered, and possible career paths for professional staff should be designed.

- Including all staff in department meetings and in informal department occasions;

² Aurora Leadership Programme is a UK-wide initiative launched by the Leadership Foundation for Higher Education (www.lfhe.ac.uk/): it aims to foster women’s careers in higher education and it targets both academic and professional staff. Athena SWAN is also a UK-wide initiative: it is sponsored by the Equality Challenge Unit (www.ecu.ac.uk/) and it awards UK higher education institutions which are particularly sensitive to gender equality.

- Mixing professional and academic staff in induction days, in seminars and in training events;
- Design seminars and events that attract the interest of broader audiences;
- Provide professional staff with coaching and career development opportunities;
- Design short workshops to bring together academic and professional staff from a single department to work together on specific tasks, so as to allow an understanding of the implications of some recurrent academic activities (such as teaching, or students' selection, organisation of events, just to mention a few) for both professional and academic staff.

5.6 Training for leaders and academic managers

Training for leaders and academic managers represents a priority. This research shows that academics who find themselves in positions of important responsibility often lack specific training: issues related to distribution of tasks, gender bias and gender stereotypes, equal opportunities and diversity, discrimination, and bullying should be part of that.

- Training academic managers in leadership, gender equality, diversity;
- Training new heads of departments, including how to assure fair workloads, how to encourage junior staff careers, how to avoid gender stereotyping and unconscious bias, how to deal with bullying issues;
- Leadership training for junior staff who could be willing to take up leadership roles in their future.

5.7 Women-only and mixed gender initiatives

Often women do not appreciate “women-only” initiatives: when this is the case, making both women and men work together on gender equality, or designing initiatives that comprise both one-gender and mixed-gender training, can represent a solution.

- Design “hybrid” training and mentoring initiatives, where women-only training or discussion is blended with moments where gender mixed participation is planned;
- Demystify women-only initiatives, find champions for such initiatives, promote their success and build on the success of participants to make people understand the role and relevance of women-only initiatives.

5.8 Addressing gender stereotypes

Gender stereotyping and gendered expectations are a reality still greatly impacting on women's experiences (and probably also on women's self-esteem and definition of themselves). It is especially important to reflect on the long-term effects that this will continue to have (such as the risk of perpetuating horizontal and vertical segregation in professions). This could be targeted with training across all levels and in different formats (for example, it can be part of socialisation initiatives, or of mentoring or leadership programmes, or of training for managers, etc.).

- Include sessions on gender stereotyping in all induction and training initiatives;
- Include sessions on gender bias and stereotyping in selected undergraduate and post-graduate modules;
- Stress the role for gender bias especially in training for leaders and academic managers, make leaders and academic managers work on unconscious bias;

- Try to assure equal representation of both women and men in strategic academic committees, in promotion and application panels;
- Create a senior academic role of representative for equality and diversity, so as to make sure that any issue or initiative related to gender and diversity receives appropriate attention even at the highest level, and to pave the way for institutional change.

6. Conclusions

This research permitted us to gather very rich narratives from women and men active at Birkbeck: Birkbeck represents just one local case, but some of these results, being related to phenomena beyond Birkbeck, could also apply to other higher education institutions. It might appear surprising to observe how indirect discriminations, stereotyping, and gender bias, still persist: this clearly indicates that universities should be very active in working for gender equality.

This paper gives an overall picture of all the main findings: this means that, in some cases, it has been necessary to summarise as much as possible; in this process, we have tried not to compromise the richness of the findings. It is our intention to go back to our data to provide more focused accounts of specific sets of our results. On the other hand, we could show how gender is a cross-cutting topic when discussing about careers and work routines. Also, the comprehensiveness of our data allowed us to draw recommendations.

In addition, applying different methods has been beneficial: interviews allowed for focusing on individual trajectories, while focus groups permitted us to see how gender is socially constructed and how expectations and decision-making in relation to career is often affected by a division of labour rooted in the traditional gender structure of our society. On the other hand, observations opened up a view on an environment that was particularly friendly in terms of gender, showing that it is possible to have places where scientific routines are not affected by discrimination or relevant biases. When comparing the findings from each one of the different methods, we can see the pieces of a big puzzle coming together: we could not find contradictions, but tensions showing how multifaceted gender inequality is.

We have tried to guarantee transparency in our research procedures, so that other institutions can apply our approach. Of course there are some limits. First of all, the fact of having observed just one team, and only specific activities (such as weekly meetings), compromises the possibility to make comparisons and to grasp a vivid picture of academic routines; the application of a method such as shadowing could be especially fruitful, but also quite invasive and could pose important ethical issues. Also, we focused on differences between women and men, but we are aware that, in terms of diversity, there are other issues as well, and there are minorities who are subject to discrimination and power dynamics that would need to be studied. A longitudinal perspective, comprising a thorough comparison with statistics of Birkbeck staff, could be especially important. These are all problems that could be tackled by future research.

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